



LATERAL THINKING IN MANAGERIAL DECISION MAKING THROUGH SIX THINKING HATS TECHNIQUE

Dr. P. S. Aithal* & Dr. P. M. Suresh Kumar**

Srinivas Institute of Management Studies, Pandeshwar, Mangalore, Karnataka

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Abstract:

The importance of decision making in organizations need no emphasis. Organizations more than ever before are confronted with problems which require appropriate solutions at the appropriate time so much so that the manager is largely a decision maker than anything else. Although confronted with a lot of repercussions of a faulty decision, managers cannot ignore taking decisions. Different thinking approaches are adopted to analyse any given problem or situation. Originally developed for individual problem solving during counselling sessions, Six Thinking Hats is a lateral thinking method to analyse a concept, situation, or problem, idea or a model. This technique uses different thinking approaches required by an individual/group while analysing a given problem/situation in an effective way. In this model different thinking approaches are used in a systematic manner indicated by a different set of frame of references called coloured hats. By conceptualizing each type of hat, the manager focuses on the style of thinking associated with each colour so that the problem can be analysed from different angles and perspectives. In this paper, we have discussed how this technique can be used as a Tool for Lateral Thinking in Managerial Decision Making Process by integrating it with Decision Theory model.

Index Terms: Six Thinking Hats Technique, Organizational Decision Making & Managerial Problem Solving

1. Introduction:

Many business organizations continuously face problems in the form of challenges with their effort of fulfilling their objectives. Managers are responsible for solving such problems optimally using optimum amount of resources. The problems may be of different kinds such as operational level, management control level, strategic planning level, or various functional levels. Organizational problems may include poor workforce productivity, interpersonal conflicts among employees, difficulty in adjusting to change, disagreements on job duties, competition for departmental resources, poor processes, unclear accountabilities, poor systems for compensation, and control of various resources, processes, and strategies. Managers at the operational level, tactical level, or executive level have responsibility and role to identify such problems and solve them with optimum solutions using their decision-making abilities in order to fulfill the objectives of the organization for long term sustainable profit. The present day managers should be specially trained for identifying organizational problems, analysing them constructively and solving them optimally by finding the best solution out of many possible solutions through their smart analysis strategies and timely decision-making abilities. For this, managers can get the help of institutional informational systems or borrowed online information systems available in the cloud along with their knowledge, skills, and experience. Apart from these, a qualified manager also uses various decision theories and other operational research techniques. Based on the various organizational performance theories, a manager can act as a leader and use lateral thinking. Lateral thinking techniques in management decision-making help managers to apply sensitivity analysis to extend optimization conditions even if the variables and constraints of the problem change with time. Various techniques are used to analyse the problems, issues, and concepts in any business system which include SWOC analysis [1-2], PEST analysis [3-4], ABCD analysis [5-15], and six thinking hat analysis [16]. In this paper, we have discussed how six thinking hats technique can be used as a lateral thinking technique in Managerial Decision Making process.

2. Six Thinking Hats Technique:

Of the various lateral thinking techniques used in analysing a situation, recently introduced six thinking hats technique finds importance due to its ability to identify the attributes of a situation from six different perspectives. In six thinking hats technique, Dr. Edward de Bono outlined different thinking styles required by an individual while analysing a given problem in a systematic way. The technique interrelates the different thinking styles used in an effective problem-solving procedure with different coloured hats [17]. This approach guides the individuals to use a particular thinking style represented by individual coloured hat. By conceptualizing each type of hat, the person focuses on the style of thinking associated with each colour. Accordingly, wearing the WHITE hat he adopts neutral judgements based on facts and figures, wearing the RED hat he will adopt humanistic thinking filled with emotions and feelings, while wearing the YELLOW hat he thinks about the positive aspects of the situation, while wearing the BLACK hat he adopts pessimistic or negative thinking based on comments, criticism, caution & carefulness, while wearing the GREEN hat he adopts creative thinking, and while wearing the BLUE hat he adopts thinking based on planning, organizing and

controlling[18-19]. The individual thinking process based on the above mentioned six hats/frame of references are logically and diagrammatically represented in figure 1.

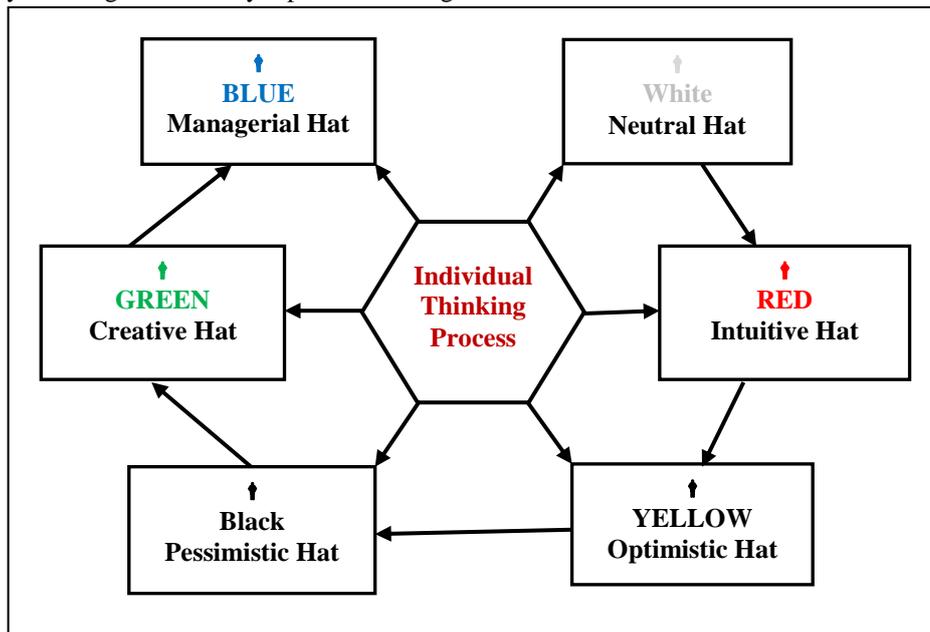


Figure 1: Block diagram connecting six thinking hats to individual thinking process [19]

3. Review on Herbert Simon Decision Theory Model:

When a manager makes a decision related to a problem, it is considered as the organization's response to a problem. Hence a decision should be thought of as a means rather than an end. Every decision is considered as the outcome of a dynamic process which is influenced by multiple factors. In an attempt to study various stages in this dynamic process of decision-making, Herbert Simon, an expert on decision making has proposed three phases of decision-making which include intelligence phase, design phase, and choice phase [20]. Further, Rubenstein and Haberstroh [21] have refined the decision-making process by proposing five phases which include: recognition of problem or need for a decision, analysis and statement of alternatives, choice among the alternatives, communication, and implementation of the decision, and follow-up and feedback results of the decision [22]. For our analysis of decision process, we have considered three phases of decision-making model as proposed by Simon, which was further improved by him by adding a fourth phase of decision implementation. This is upon his argument that the choice phase of an alternative does not complete decision-making process unless managers as decision makers put the decision into action by implementing the decision. Based on this he added a new phase later called implementation phase. Herbert Simon decision theory model is presented below in Figure 2.

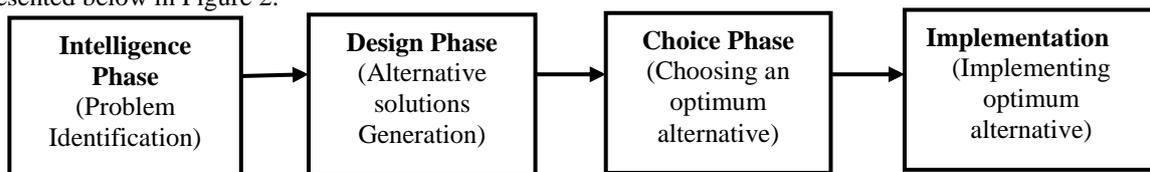


Figure 2: Phases in the decision-making process [20]

Various phases of decision-making process presented in Figure 2 are more relevant for unstructured and semi-structured non-programmed decisions. Problems that occur infrequently are semi-structured and unstructured and a great deal of uncertainty is associated with the outcomes of various alternatives, require the managers to utilize all the phases decision-making process [20]. The various phases of the decision-making process, the problems involved therein, and the type of information systems required to furnish information to overcome these problems are enumerated below:

(a) Intelligence Phase: A problem is a difficult situation which demands a solution to overcome. It is a gap between the present state of affair and future expected state of affair. In the organizational context, a problem exists whenever one faces a question whose answer involves doubt and uncertainty. A problem remains vague at the initial stage of identification. In order to make it more specific and clear, problem formulation is required so that design and choice phases operate on the right problem. The manager in his role of a decision maker, study the problem to reduce the complexity by comparing the difference between desired and real.

(b) Design Phase: Design phase of decision making involves generation of possible alternatives through which the problem can be solved. A problem can be solved in number of ways, but, all the ways need not be equally

satisfying to give an expected solution. Further, if there is only one solution to a problem, then no question of decision arises. Therefore, the decision maker must try to find out the different alternatives available in order to get the most acceptable result of a decision. Identification of various alternatives could be based on past experience, copying from the experiences of others or through creative exercises for new ideas.

(c) Choice Phase: Choosing an alternative aimed at solving the problem in the most appropriate way in a given situation, involves evaluating all the alternatives generated at the design stage. However, all alternatives available for decision making will not be taken for detailed evaluation. Every manager has limited energy and psychologically most of them prefer to work as per the plans that have a good prospect of being carried out. Evaluation of various alternatives presents a clear picture as to how each of these contributes to the solution of the problem comparing likely outcomes of the various alternatives. Choice aspect of decision making is, thus, related to choosing the most acceptable alternative which goes with the organizational objectives. Since chosen alternative should be acceptable in the light of organizational objectives, the manager requires information systems that can keep track of the costs, consequences, and opportunities by each alternative generated at the design phase.

(d) Implementation Phase: Implementation is putting a decision into practice so that objectives of the decision are achieved. Unless this is done, managers will never know what way their choice has contributed. Therefore, the implementation of the decision may be seen as an integral aspect of the decision. Decision maker must ensure that the problem has been solved and the objectives have been achieved by choosing a specific alternative. Managers should take follow-up action to know if there is any deviation between objectives and the performance. Such deviation should be analyzed and factors responsible for this deviation should be located. The effectiveness of implementation is important because it is only effective action through which organizational objectives can be achieved.

4. Use of Six Thinking Hats in Decision Theory:

Six thinking hats technique is adopted in design and choice phase of decision making.

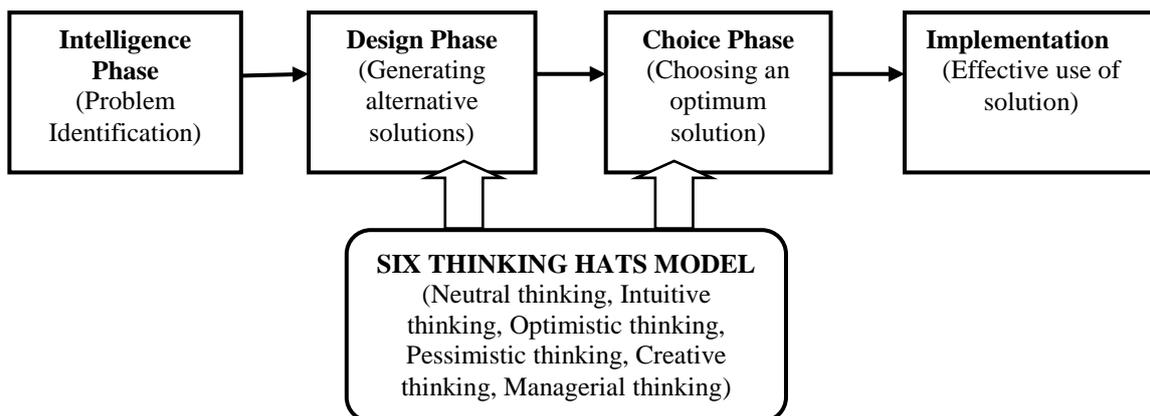


Figure 3: Application of six hat lateral thinking in decision-making process.

4.1 Six Thinking Hats in Design Phase:

Solution Design Using White Thinking Hat: By adopting neutral judgement using facts and figures the manager can identify and design various alternative solutions to an identified organizational problem without any bias or prejudice. This is absolutely based on quantitative reasoning where each solution will tell its implication in terms of cost and benefits. The task is to generate as many solutions which would demand less cost and yield more benefit. The variation of cost could be in terms of money, time, or effort. For example, cost of production loss, additional manpower costs, speed or delay in obtaining an outcome, resources wasted etc. and benefit would be easy, quick or cheap. Both cost and benefits are relative.

Solution Design Using Red Thinking Hat: The manager can identify and design various alternative solutions to an identified organizational problem based on humanity based thinking. This considers the possible feelings, the intangible element in any organization. Any decision is bound to create an impact on the persons who are affected by the decision. Foreseeing this is essential to weighing the consequence or unhappiness caused due to the decision. Motivation, status quo, personal pride, changing relationships is reflected in such solutions.

Solution Design Using Yellow Thinking Hat: Optimistic thinking will capture hope and positive speculation of the solutions. This aims at logical and positive plans which consider positive parameters to bring positive results. The justification for each solution is based on its probabilities of positive outcome.

Solution Design Using Black Thinking Hat: Risk is a possible danger due to possibility of a wrong decision or wrong action. The manager identifies and designs various alternative solutions to an identified organizational problem based on negative consequences. The intention is to generate solutions each of which will have a

minimum risk. The risk may be not just a single element but multifarious based on various facets of the situation.

Solution Design Using Green Thinking Hat: Based on creative ideas there could be ever so many solutions to any problem, some of which may be totally innovative. In such instances, improbabilities become possibilities in unique ways. Such ideas are born out of out-of-the box thinking.

Solution Design Using Blue Thinking Hat: The manager can identify and design various alternative solutions to an identified organizational problem based on managerial thinking like planning, organizing, and controlling, i.e., the choice of best alternative can be planned properly to foresee the possible performance of such decision on the organizational business objective. Organizing the implementation of such optimum choice in organizational environment and controlling the constraints during the observation period is also the responsibility of blue thinking hat managers.

4.2. Six Thinking hats in Choice Phase:

The manager can evaluate various alternatives based on organizational objectives, organizational resources, organizational abilities, organizational business environment, organizational strategies, and organizational future business, keeping the organizational strengths, opportunities, and constraints into account.

Optimum Choice Using White Thinking Hat: During white thinking hat analysis of various alternatives, the manager adopts neutral quantitative thinking using facts and figures without any bias or prejudice using quantitative data and analysing the alternatives based on decision theory for tactical and strategic problems of various decision types like decision making with certainty, decision making under uncertainty, decision making under risk, and decision making under conflict. In choice phase, if the decision making is under uncertainty with multiple states of nature, then the manager has no means to arrive at probability values to the likelihood of occurrence of these states of nature, and in such situations the manager can use maximax criterion, or minimax criterion, or maximin criterion, or Laplace criterion for choosing optimum solution from alternatives. In choice phase if the decision making is under risk with situations where the decision maker has to face several states of nature and if he has some knowledge or experience which will enable him to assign probability to the occurrence of each state of nature, then he can make use of most popular methods like Expected Monetary Value (EMV) Criterion, Expected Opportunity Loss (EOL) Criterion, Expected Value of Perfect Information (EVPI) Criterion. In choice phase if the decision making is under conflict then white thinking hat can be used to understand the conflict to resolve it successfully.

Optimum Choice Using Red Thinking Hat: The manager can evaluate various alternatives to identify optimum solution by adopting humanistic thinking filled with emotions and feelings. In such instances, the choice among alternatives may reflect the personality of the manager, his psychological predisposition, his ethos and feelings, the principles he has adopted in his life, influence of role models and ethical leaders in his life, the lifestyle he has adopted, the education and experience he has, and his way of thinking and respecting others.

Optimum Choice Using Yellow Thinking Hat: The manager can evaluate various alternatives by identifying the positive aspects of the situation, environment, and the outcomes for each and every alternative. This may include the immediate or long-term profit for the organization, decreasing the expenditure, improving the brand value, improving the efficiency, or simplifying the complex systems etc. to optimize the output performance. Here, the decision maker uses positive sum game to end up with win –win situation.

Optimum Choice Using Black Thinking Hat: The manager can evaluate various alternatives by adopting pessimistic or negative thinking based on comments, criticism, caution & carefulness. Here, the decision maker will consider information available from any corner including comments, criticism and with caution, he chooses an alternative among many. Adopting pessimistic thinking while decision making sometimes gives an optimum solution. His choice of alternative would likely to be most positive among all negatives, or least negative among all negatives.

Optimum Choice Using Green Thinking Hat: Creative thinking based innovation can help the managers to solve many complicated problems. The manager can evaluate various alternatives he has developed adopting creative thinking and identifying an opportunity to choose a most innovative solution among the set of alternatives. The green hat thinking model can be used to think outside-the-box and expand the possibilities of the improbable in unique ways to open the doors to new ideas and avenues of thinking which allows them to choose optimum among the alternatives. Various technology based tools like artificial intelligence, robotics, and online analytical techniques can be used by the managers for innovative solutions in choice phase of the problem solving.

Optimum Choice Using Blue Thinking Hat: The manager can evaluate various alternatives by adopting a thinking based on planning, organizing and controlling as a perfect manager. However, such systematic method following management principles cannot be evolved detaching entirely from the thinking hat styles discussed earlier. Managers adopting blue managerial hat whose primary role is to manage and direct the thinking process, sort out all alternatives and probable solutions and apply managerial techniques and wisdom to choose best among the alternatives.

5. Conclusion:

Organizations more than ever before are confronted with problems which require appropriate solutions at the appropriate time so much so that the manager is largely a decision maker than anything else. Considering that decision making is not confined to the realm of conceptualization, but demonstrating its suitability by putting into action, a host of considerations come into picture as to what is a suitable solution since there could be many solutions to a given problem. It is possible to use six hats lateral thinking technique as an effective tool in managerial decision making process in organizations. A demonstrable model could be adopted by applying Herbert Simon Decision Theory Model integrating it with Six Hat Technique in the design phase and choice phase of Decision Making Process. Six Thinking Hats technique can be used in the process of finding alternative solutions and choosing the best alternative in the case of personnel and productivity linked problems. Each manager may have a bent of mind to emotions, optimism, pessimism, creativity or neutrality. It would be interesting to probe the sequence of hat adopted versus the personality of the manager.

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